



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/866,867	05/30/2001	Goran Snygg	3670-33	4501

7590 05/04/2005

NIXON & VANDERHYE P.C.
8th Floor
1100 North Glebe Road
Arlington, VA 22201

EXAMINER

NGUYEN, DUC M

ART UNIT	PAPER NUMBER
----------	--------------

2685

DATE MAILED: 05/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/866,867	Applicant(s) SNYGG ET AL.	
	Examiner Duc M. Nguyen	Art Unit 2685	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is in response to applicant's response filed on 12/13/04. Claims 1-12 are now pending in the present application. **This action is made final.**

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims **1, 3-6, 8** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Lopponen et al (US 5,781,860)** in view of **Futamura (US 6,023,609)**.

Regarding claims **1, 6**, **Lopponen** discloses a radio communication system comprising a plurality of mobile station (transmitting and receiving devices) capable of communicating in the direct mode, comprising :

- an antenna as claimed (see Fig. 5);
- a controller for controlling the transceiver to tune to the channel used in responsive to a channel identifier contained in a command (control signal) received from a dispatcher (external source) (see col. 5, lines 35 – col. 8, line 29).

Here, since **Lopponen** discloses a controller for controlling the transceiver to **tune** to a desired direct channel, it is clear that a tunable filter is obviously disclosed by **Lopponen**. Further, it is noted that the use of a variable filter for tuning the transceiver to

Art Unit: 2685

a selected channel is well known in the art as disclosed by **Futamura** (see Figs. 3-4 and col. 10, lines 31-45). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to incorporate the above teaching of Futamura to Lopponen for providing a variable filter as claimed, for adaptively filtering unwanted signals to improve signal reception quality of a desired signal.

Regarding claims **3, 8**, they are rejected for the same reason as set forth in claim 1 above. In addition, Lopponen discloses a central control device (dispatcher) as claimed (see col. 4, lines 60-65).

Regarding claims **4-5**, they are rejected for the same reason as set forth in claim 1 above. In addition, Futamura discloses the variable filter is a bandpass filter or a notch (band elimination) filter as claimed (see col. 11, lines 23-35).

2. Claims **2, 7, 9-12** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Futamura** (US **6,023,609**) in view of **Liu et al** (US **6,289,218**).

Regarding claims **2, 7**, **Futamura** discloses a mobile transceiver comprising

- an antenna as claimed (inherent component for a wireless transceiver, see Figs. 3-4 which discloses wireless transceivers);
- a variable filter located between the antenna (common port) and the transmitter/receiver as claimed (see Figs. 3-4);
- a controller for controlling the transceiver to tune the variable filter to the channel used in responsive to a channel identifier contained in a command

(control signal) received from a base station (external source) (see Figs. 3-4 and col. 10, lines 31-45).

However, Futanara fails to disclose the control signal for controlling the filter in the transmitting device is "located at the receiving device" and vice versa. However, Liu discloses a direct mode communication method wherein two handsets can be communicated to each other based on ID codes, and wherein a channel number is included in the ID codes (see col. 2, lines 20-28). Since Liu and Futamura both disclose mobile handsets, it would have been obvious to one skilled in the art at the time the invention was made to provide the above teaching of Liu to Futamura for further providing direct mode channels to mobile handsets as well, thereby resulting in that the control signal for controlling the filter in the transmitting device is located at the receiving device, and vice versa, as claimed (i.e, each of the devices controls a reception channel that provides the best signal reception quality), for utilizing advantages provided by direct mode communication in situations such as the mobile handsets are at a great distance from the base station such that system channels can not be used.

Regarding claims **9, 12**, they are rejected for the same reason as set forth in claim 2 above.

Regarding claims **10-11**, they are rejected for the same reason as set forth in claim 2 above. In addition, Futamura discloses the variable filter is bandpass filter or notch (band elimination) filter as claimed (see col. 11, lines 23-35).

Response to Arguments

3. Applicant's arguments filed 12/13/04 have been fully considered but they are not persuasive.

As to Applicant's argument regarding the total silent about the existence of any filter in the device of Lopponen's reference, it is noted that since Lopponen discloses a controller for controlling the transceiver to **tune** to a desired direct channel (see col. 7, lines 35-37, lines 61-65), it is clear that a tunable filter is obviously disclosed by Lopponen in order to tune the transceiver to a desired direct channel.

As to Applicant's argument regarding the total silent about the existence of an antenna in the device of Futamura's reference, it is noted that since Futamura discloses wireless transceivers (see Figs. 3-4), and since the antenna is an **inherent** component of a wireless transceiver in order to radiate and receive electromagnetic fields of radio frequency (RF) signals. Further, it is clear that the antenna is located near the "common port" in Fig. 4 of Futamura, in order to perform both transmission and reception functions. Therefore, it is clear that the location of the filter is arranged between the antenna and the transmitter/receiver as claimed.

Therefore, the examiner believes that the combination of Lopponen and Futamura is proper as well as the combination of Futamura and Liu. Therefore, the examiner retains the rejection of claims 1, 3-6, 8 under 35 USC 103 (a) as being unpatentable over Lopponen in view of Futamura, and claims 2, 7, 9-12 under 35 USC 103 (a) as being unpatentable over Futamura in view of Liu.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. **Any response to this final action should be mailed to:**

Box A.F.

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for formal communications intended for entry)

(for informal or draft communications, please label "PROPOSED" or "DRAFT")

Any inquiry concerning this communication or communications from the examiner should be directed to Duc M. Nguyen whose telephone number is (571) 272-3865,

Application/Control Number: 09/866,867

Page 7

Art Unit: 2685

Monday-Thursday (9:00 AM - 5:00 PM). Or to Edward Urban (Supervisor) whose telephone number is (571) 272-7899.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-7259.

Duc M. Nguyen

Apr 20, 2005

A handwritten signature in black ink, appearing to read 'Duc M. Nguyen', written over the printed name and date.